Software:-

#. A Software is a collection of Computer Programs that help us to perform a task.

Types of Software:-

1. System Software:-

Example:- Operating System (OS), Compiler etc.

2. Application Software:-

Example:- Web Application, Mobile Application, Desktop Application.

Browser:-

1. Google Chrome
2. Firefox
3. Microsoft Edge
4. Opera
5. Safari (For Mac Users)

Operating System:-

1. Windows
2. Linux
3. MacOS

Programming Languages:-

1. Java
2. Python
3. PHP
4. JavaScript
5. Ruby
6. SmallTalk
7. C#

Software Testing:-

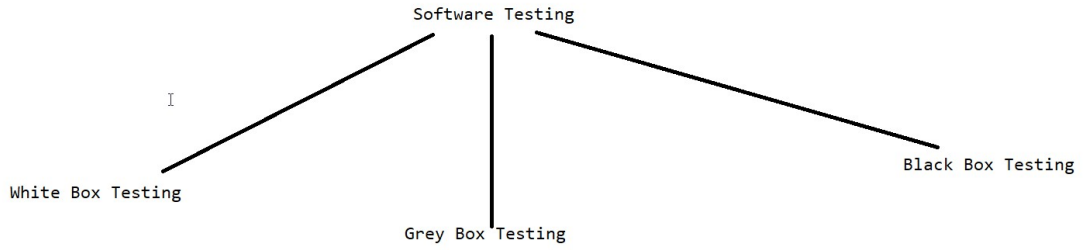
#. Software Testing is a part of Software development process.
#. Software Testing is an activity to detect and identify the defects in the software.
#. The objective of software testing is to release quality product to the client.

Q. Why we do Software Testing?

#. We do software testing to find defects, if we release a software without testing then client/customer might have to face severe loss ,thus we do software testing.

#. To check whether the software is working according to the requirement specification we do software testing.

#. To improve the quality of the software we do software testing.



White Box Testing:-

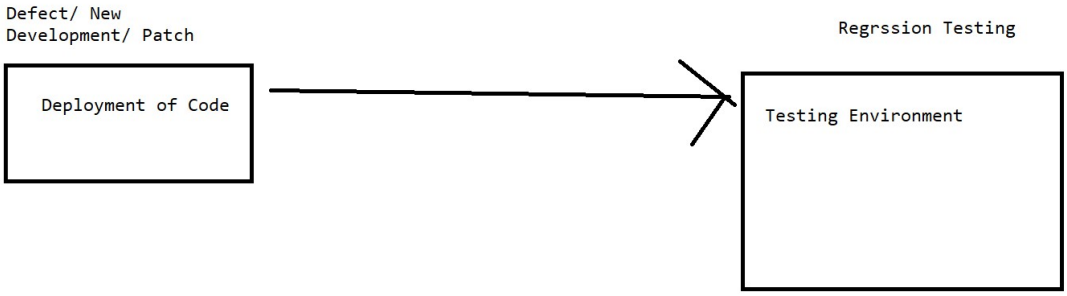
#. Testing Each and Every line of code is called as White Box Testing.
#. It is also called as Glass Box/ Open Box/ Unit Testing.
#. Testing which is done by the 'developer' is called as 'white box testing'.

Black Box Testing:-

#. To verify the functionality of an application aganist the requirement specification is called as Black Box Testing.
#. It is also called Functional Testing or behavioral testing.
#. Testing which is done by the 'Test Engineer' is called as 'Black Box Testing'.

Types of Black Box Testing:-

1. Functional Testing
2. Integration Testing
3. System Testing (End-to-End Testing)
4. User Acceptance Testing (UAT)
5. Smoke Testing
6. Adhoc Testing
7. Compatibility Testing
8. Regression Testing
9. Usability Testing
10. Alpha Testing
11. Beta Testing
12. Reliablity Testing
13. Globalization Testing
14. Localization Testing
15. Performance Testing
16. Exploratory Testing
17. Security Testing
18. Sanity Testing



Defect:-

#. Deviation from the requirement specification is called as defect.
#. If the feature is not working according to the requirement specification, we called it as defect.

Q. Why shouldn’t developer test the Application?

#. Developer will never find the mistake in the code written by himself/herself.
#. If developer will busy in testing then the time spent on the coding will be less.

SDLC : Software Development Life Cycle:-

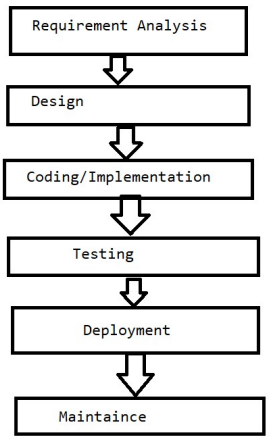
FDD : Functional Design Document **SRS**
TDD : Technical Design Document

FDD : Functional Consultant
TDD : Technical Consulatant

FDD+TDD

Test Scenraios,Test Cases

SRS :- Software Requirement Specification



Functional Testing

SIT 01 (1ST NOV 2025 TO 15 DEC 2025)

SIT 02 (16 DEC 2025 TO 31 JAN 2026)

JULY 01 2025

1st Nov 2025

SDLC Models

1. Waterfall Model
2. Spiral Model
3. V Model
4. Agile
5. RAD

#. Software Development Life Cycle is process used by software industry to design,develop and test software.

P- People
P- Process
P- Product

Waterfall Model:-

Advantages:-

#. Quality of the product will be good.
#. Since Requirement changes are not allowed , chances of finding bugs will be less.
#. Preferred for small projects where requirements are freezed.

Disadvantages:-

#. Testing will only start after coding
#. Requirement changes are not allowed
#. Total Investment is more because time taking for rework on defects is time consuming which leads you to high investment.

Spiral Model:-

#. Sprial Model is a iterative model.
#. Sprial Model overcomes the drawbacks of waterfall model.
#. In Every Cycle new software will be released to the customer.
#. Software will be released in multiple versions . so it is called vesrion control model.

Advantages:-

#. Testing is done in every cycle,before going to the next cycle.
#. Customer will get the use of software for every module.
#. Requirement Changes are allowed after every cycle before going to the next cycle.

Drawbacks:-

#. There is not testing in requirement and design.
#. Every cycle of sprial model looks like waterfall model.
#. Requirement changes are NOT allow in between the cycle.

Different Types of Environment:-

#. **Development Environment (DEV Environment)**
Development Environment is used by the developer.
Example:- https://www.facebook.com/dev01

#. **Testing Environment (TEST Environment)**
Testing Environment is used by the Test Engineer.
Example:- https://www.facebook.com/test01

#. **UAT Environment**
UAT Environment is used by the Client/Customer.
Example:- https://www.facebook.com/uat

#. **Production Environment**
Production Environment is used by the End Users.

#. **Conversion Environment**
Conversion Environment is used by the Admin/Dev Ops.

#. **Training Environment**
#. Used for Training Purpose.

Defect:-

#. Deviation from the requirement specification is called as defect.
#. If the feature is not working according to the requirement specification then we called it as defect.

BUG:-

#. Informal name given to defect is called as BUG.

Error:-

#. Mistake done in the code which is not allowing you to compile or execute is called an error.
Compile Time Error:- Syntax Misatke will lead you to compile time error.
#.Run Times Error:- All logical mistakes will lead you to Run time error.

Failure:-

#. A defect or bug or error will lead you to 'failure'.

Implicit Requirement:-

#. Any requirement which is not given by the customer is called as 'Implicit Requirement'.

Explicit Requirement:-

#. Any Requirement which is given by the customer is called as 'Explicit Requirement'.

Defect Tracking Tools:-

#. JIRA
#. HP ALM
#. ADO (Azure Dev Ops)
#. Service Now
#. TASK (Provided META)
#. BUGZILLA
#. Trello
#. Mantis